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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,969	09/12/2003	Charles Jia	200207672-1	6372

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FORT COLLINS, CO 80527-2400

EXAMINER

TOPGYAL, GELEK W

ART UNIT	PAPER NUMBER
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2621

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06/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/660,969	Applicant(s) JIA ET AL.	
	Examiner Gelek Topgyal	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/12/03 and 11/26/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Nonfunctional descriptive material that does not constitute a statutory process, machine, manufacture or composition of matter and should be rejected under 35 U.S.C. Sec. 101. Certain types of descriptive material, such as music, literature, art, photographs and mere arrangements or compilations of facts or data, without any functional interrelationship is not a process, machine, manufacture or composition of matter. USPTO personnel should be prudent in applying the foregoing guidance. Nonfunctional descriptive material may be claimed in combination with other functional descriptive multi-media material on a computer-readable medium to provide the necessary functional and structural interrelationship to satisfy the requirements of 35 U.S.C. Sec. 101. The presence of the claimed nonfunctional descriptive material is not necessarily determinative of nonstatutory subject matter. For example, a computer that recognizes a particular grouping of musical notes read from memory and upon recognizing that particular sequence, causes another defined series of notes to be played, defines a functional interrelationship among that data and the computing processes performed when utilizing that data, and as such is statutory because it implements a statutory process.

- TTG
5/28/07
2. ~~Claim 18~~ is rejected under 35 U.S.C. Sec. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 18 recites

claims 18-21 are

"a video file" and "an animated reduced image file" which does not impart functionality to a computer or computing device, and is thus considered nonfunctional descriptive material. Such nonfunctional descriptive material, in the absence of a functional interrelationship with a computer, does not constitute a statutory process, machine, manufacture or composition of matter and is thus non-statutory per se.

Claim Rejections - 35 USC § 102

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3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1-3, 7-15, 17-22 and 24-28** are rejected under 35 U.S.C. 102(b) as being anticipated by Wactlar et al. (US 5,835,667).

Regarding claim 1, Wactlar et al. teaches a method comprising:

selecting a plurality of key frames from a video data file (Col. 14, lines 1-25 teaches where “several frame” are selected from a video file to create intelligent moving icons (hereinafter “imicons”)); and,

generating an animated image file from the plurality of key frames (Col. 13, line 52-col. 14, line 25 teaches wherein imicons are created using selected frame from a video file).

Regarding claim 2, Wactlar et al. teaches the claimed further comprising, prior to generating the animated image file, reducing in size each key frame (as discussed in claim 1 above, imicons are size-reduced versions of the video file from which it is derived).

Regarding claim 3, Wactlar et al. teaches the claimed wherein reducing in size each key frame comprises uniformly reducing in size each key frame (imicons contain frames that have been reduced to the same size. See Figs. A-1 and A-2 where the imicons display video of the same reduced size).

Regarding claim 7, Wactlar et al. teaches the claimed further comprising, prior to generating the animated image file, indexing colors of each frame to colors of the animated image file (as discussed in claim 1 above, the imicons are size reduced versions of the original video file. The colors represented in the imicons are the same as on the original video file. Therefore during the creation of imicons, the colors have been indexed.)

Regarding claim 8, Wactlar et al. teaches wherein selecting the plurality of key frames from the video data file comprises:

segmenting the video data file into one or more shot segments (Col. 11, lines 54-65 teaches segmenting of a video file into video paragraphs using paragraphing function 33); and,

for each shot segment, extracting one or more of the plurality of key frames from the shot segment (col. 13, line 52 – col. 14, line 25 teaches that after video paragraphing, the selection of key frames from the segmented video is completed).

Regarding claim 9, Wactlar et al. teaches the claimed wherein segmenting the video data file into the one or more shot segments comprises utilizing one or more of: shot boundary detection analysis (“camera motion” detection in col. 12, lines 59-67), principal component analysis, zoned image content analysis, color coded analysis, adjacent frame content analysis (detecting changes in DCT co-efficients in col. 12, lines 1-5), and motion detection analysis (detecting changes in DCT co-efficients in col. 12, lines 1-5 and “object presence” in col. 13, lines 16-24).

Regarding claim 10, Wactlar et al. teaches the claimed wherein extracting the one or more of the plurality of key frames from the shot segment comprises utilizing one or more of: histogram analysis, object segmentation analysis, object motion detection analysis, and object tracking analysis (col. 14, lines 16-22 teaches using camera motion and subject movement tracking, as discussed in claim 9 above, to determine selection of frames for imicon creation).

Regarding claim 11, Wactlar et al. teaches the claimed wherein selecting the plurality of key frames from the video data file comprises sampling the video data file at substantially regular intervals to obtain the plurality of key frames (for the same reasons as discussed in claims 1 and 10 above. Furthermore, Wactlar et al. also teaches in col. 14, lines 13-16 the selection of an "optimal frame rate" as a method to determine imicon content).

Regarding claim 12, Wactlar et al. teaches a method comprising:

displaying, for a plurality of video files, a corresponding plurality of animated reduced image files representing the video files as a plurality of key frames thereof that have been reduced in size (imicons as illustrated in Figs. A-1 and A-2) and which are repetitively successively sequenced to provide thumbnail previews of the video files (imicons as illustrated in Figs. A-1 and A-2); and,

in response to a user selecting one of the animated reduced image files, displaying the video file to which the animated reduced image file selected corresponds (As illustrated in Figs. A-1 and A-2, and described in col. 14, line 41-col. 15, lines 52 teaches of the ability to search the library and to playback portions of video according to the content of the imicons).

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Regarding claim 13, Wactlar et al. teaches the claimed wherein displaying the corresponding plurality of animated reduced image files comprises displaying the corresponding plurality of animated reduced image files on a web page (Fig. 4 and col. 16, lines 1-60 teaches a system where the user can access the database using a internet based connection).

Claim 14 is rejected for the combined reasons as discussed in claims 1, 2 and 8.

Claim 15 is rejected for the same reasons as discussed in claim 11 above.

Claim 17 is rejected for the same reasons as discussed in claim 7 above.

Regarding claim 18, it is rejected for the same reasons as discussed in claims 1 and 14 above, and furthermore, Wactlar et al. teaches that the video paragraphs and the imicons are stored in digital library 36 and on the workstation 42 in system 10, see Figure 1 and col. 6 lines 41-54.

Claim 19 is rejected for the same reasons as discussed in claim 9 above, wherein each of the video paragraphs are separate scenes.

Claim 20 is rejected for the same reasons as discussed in claim 3 above.

Claim 21 is rejected for the same reasons as discussed in claim 7 above.

Regarding claim 22, Wactlar et al. teaches a video-recording device comprising:

a video-recording mechanism to record video files (col. 6, lines 17-37 teaches ability to record video information from various sources into the offline portion 12 of the system);

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a generator to generate an animated reduced image file for each video file as a plurality of key frames thereof that have been reduced in size and which are successively sequenced to provide a thumbnail preview of the video file (Col. 13, line 52-col. 14, line 25 teaches wherein imicons are created using selected frame from a video file); and,

a display on which the animated reduced image files for the video files are displayed for user selection of a particular video file for viewing thereof on the display (As illustrated in Figs. A-1 and A-2, and described in col. 14, line 41-col. 15, lines 52 teaches of the ability to search the library and to playback portions of video according to the content of the imicons).

Regarding claim 24, Wactlar et al. teaches wherein the video-recording mechanism is a digital video-recording mechanism to record digital video files (col. 6, lines 17-37 teaches ability to record video information from various sources into the offline portion 12 of the system).

Device claim 25 is rejected for the same reasons as discussed in claim 22 above.

Device claims 26 and 27 are rejected for the same reasons as discussed in claim 22 above.

Device claim 28 is rejected for the same reasons as discussed in claim 22 above.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Wactlar et al. (US 5,835,667) in view of Sull et al. (US 2006/0064716).

Regarding claim 4, Wactlar et al. teaches the claimed as discussed in claim 1 above, however fails to particularly teach wherein reducing in size each key frame comprises cropping each key frame.

In an analogous art, Sull et al. teaches in paragraph 298 of "an image cropper 170 ... crops and resizes the key frame image".

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate that ability to crop a frame image as taught by Sull et al. into the system of Wactlar et al. to allow only desired portions of a frame image to be viewable in an intelligent moving icon or imicon.

7. **Claims 5, 6, 16 and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wactlar et al. (US 5,835,667).

Regarding claims 5 and 6, Wactlar et al. teaches the claimed as discussed in claim 1 above, however fails to particularly teach further comprising, prior to generating the animated image file, enhancing image quality of each key frame, and, wherein enhancing the image quality of each key frame comprises combining the key frame with one or more frames surrounding the key frame.

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It is noted that enhancing image quality of a frame by combining them with its' surrounding frames is well known and conventional in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the ability to combine a frame with its surrounding frames because it increases the quality of the icon, thereby making a more pleasing icon to be displayed.

Claim 16 is rejected for the same reasons as discussed in claims 5 and 6 above.

Regarding claim 23, Wactlar et al. teaches the claimed as discussed in claim 22 above, however, fails to particularly teach wherein the video-recording mechanism is an analog video-recording mechanism to record analog video files, such that the generator digitizes the analog video files prior to generating the animated reduced image files for the analog video files.

It is noted that the ability to digitize analog video to generate digital video is well known and conventional in the art.

Wactlar et al. discusses in col. 6, lines 19-20 of "raw video material may include audio-video from any one or a number of various sources."

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the ability to digitize analog video so that the system of Wactlar et al. can use the digital video to perform its applications on the digital system 10.

Conclusion

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8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

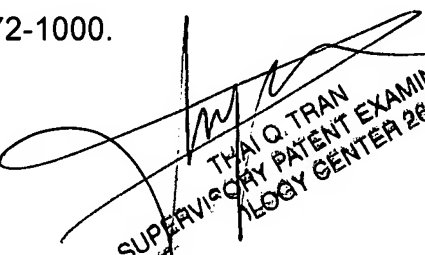
The cited art teaches systems that allow summaries of video files to be created and are viewable to a user.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gelek Topgyal whose telephone number is 571-272-8891. The examiner can normally be reached on 8:30am -5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GT
5/25/2007


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